

**ABSTRACT**

A method for transmitting data over a channel includes receiving a first datagram for transmission at a first priority, and receiving a second datagram for transmission at a second priority, higher than the first priority, before the transmission of the first datagram is completed. The first datagram is divided into a plurality of fragments, including a first fragment and a last fragment. The fragments of the first datagram are transmitted over the channel, beginning with the first fragment. At least a fragment of the second datagram is transmitted over the channel before transmitting the last fragment of the first datagram.